

EPA Region 5 Records Ctr.



393294

L1190400006		POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT		I. IDENTIFICATION	
PART 1 - SITE INFORMATION AND ASSESSMENT		01 STATE 02 SITE NUMBER ILD 006278360			

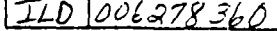
II. SITE NAME AND LOCATION					
01 SITE NAME (Legal, common or descriptive name of site) REILLY TAR and Chemical Corporation			02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER 19th and Edwardsville Road		
03 CITY Granite City			04 STATE IL	05 ZIP CODE 62040	06 COUNTY Madison
09 COORDINATES 07 COUNTY CODE 08 CONG DIST 38 41 20.0 09 08 20.0 119 21					
13 DIRECTIONS TO SITE (Starting from nearest public road) 37 acres in the S.E. Quarter of section 19, Township 3, Range 9 West, 3rd Principal Meridian.					

III. RESPONSIBLE PARTIES					
01 (If known) OPERATOR REILLY TAR and Chemical Corporation			02 STREET (Business, mailing, residential) P.O. Box 370		
03 CITY Granite City			04 STATE IL	05 ZIP CODE 62040	06 TELEPHONE NUMBER '618' 452-3141
07 (If known and different from owner) OWNER REILLY TAR and Chemical Corporation			08 STREET (Business, mailing, residential) 151 North Delaware Suite 1510		
09 CITY Indianapolis			10 STATE IN	11 ZIP CODE 46204	12 TELEPHONE NUMBER '317' 638-7531
13 TYPE OF OWNERSHIP (Check one) <input checked="" type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL: _____ (Agency name) <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> F. OTHER: _____ (Specify) <input type="checkbox"/> G. UNKNOWN					
14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply) <input checked="" type="checkbox"/> A. RCRA 3001 DATE RECEIVED: <u>11/18/80</u> <input type="checkbox"/> B. UNCONTROLLED WASTE SITE (RCRA 103 d) DATE RECEIVED: _____ MONTH DAY YEAR MONTH DAY YEAR <input type="checkbox"/> C. NONE					

IV. CHARACTERIZATION OF POTENTIAL HAZARD					
01 ON SITE INSPECTION <input checked="" type="checkbox"/> YES DATE <u>04/23/81</u> <input type="checkbox"/> NO MONTH DAY YEAR <u>01-14-86</u>			BY (Check all that apply) <input type="checkbox"/> A. EPA <input type="checkbox"/> B. EPA CONTRACTOR <input checked="" type="checkbox"/> C. STATE <input type="checkbox"/> D. OTHER CONTRACTOR <input type="checkbox"/> E. LOCAL HEALTH OFFICIAL <input type="checkbox"/> F. OTHER: _____ (Specify) CONTRACTOR NAME(S): _____		
02 SITE STATUS (Check one) <input checked="" type="checkbox"/> A. ACTIVE <input type="checkbox"/> B. INACTIVE <input type="checkbox"/> C. UNKNOWN			03 YEARS OF OPERATION <u>0909761</u> PRESENT <input type="checkbox"/> UNKNOWN BEGINNING YEAR ENDING YEAR		
04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED CREOSOTE WASTE (U051) WASTEWATER TREATMENT SLUDGE (K035)					
05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION Surface water (population/environment) air (population) Groundwater (population/environment)					

V. PRIORITY ASSESSMENT					
01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents) <input checked="" type="checkbox"/> A. HIGH (Inspection required promptly) <input type="checkbox"/> B. MEDIUM (Inspection required) <input type="checkbox"/> C. LOW (Inspect on time available basis) <input type="checkbox"/> D. NONE (No further action needed, complete current disposition form)					

VI. INFORMATION AVAILABLE FROM					
01 CONTACT L.L. Pirthe		02 OF (Agency/Organization) Plant Manager		03 TELEPHONE NUMBER '618' 452-3141	
04 PERSON RESPONSIBLE FOR ASSESSMENT Kenneth L. Page		05 AGENCY IEPA	06 ORGANIZATION RPMS	07 TELEPHONE NUMBER 217 785-5697	08 DATE <u>09/08/86</u> MONTH DAY YEAR





POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
ILD 006278360

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A GROUNDWATER CONTAMINATION
02 ☒ OBSERVED (DATE 11-26-84) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED 100
04 NARRATIVE DESCRIPTION
Groundwater is contaminated, study done by Dames and Moore in 1984. Both organics and degradation products from the impoundment sludge were found in the ground-water samples.

01 ☐ B SURFACE WATER CONTAMINATION
02 ☐ OBSERVED (DATE _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED 36,815
04 NARRATIVE DESCRIPTION
The Illinois-American Water Co. that supplies Granite City water supply, obtains water from the Mississippi.

01 ☐ C CONTAMINATION OF AIR
02 ☐ OBSERVED (DATE _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED 46,210
04 NARRATIVE DESCRIPTION
potential Release of fumes (possibly toxic in nature) from creosote operations.

01 ☐ D FIRE EXPLOSIVE CONDITIONS
02 ☐ OBSERVED (DATE _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED _____
04 NARRATIVE DESCRIPTION

01 ☐ E DIRECT CONTACT
02 ☐ OBSERVED (DATE _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED _____
04 NARRATIVE DESCRIPTION

01 ☐ F CONTAMINATION OF SOIL
02 ☒ OBSERVED (DATE _____) POTENTIAL ALLEGED
03 AREA POTENTIALLY AFFECTED 37 (ACRES)
04 NARRATIVE DESCRIPTION
Hazardous waste and creosote drippage along spill tracks outside the treatment cylinder areas. Areas where the ponds were pumped or discharged.

01 ☐ G DRINKING WATER CONTAMINATION
02 ☐ OBSERVED (DATE _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED 36,915
04 NARRATIVE DESCRIPTION

See A + B above

01 ☐ H WORKER EXPOSURE/INJURY
02 ☐ OBSERVED (DATE _____) POTENTIAL ALLEGED
03 WORKERS POTENTIALLY AFFECTED _____
04 NARRATIVE DESCRIPTION

01 ☐ I POPULATION EXPOSURE/INJURY
02 ☐ OBSERVED (DATE _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED _____
04 NARRATIVE DESCRIPTION



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
IL 006273360

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA

02 ☒ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

04 NARRATIVE DESCRIPTION

Stressed vegetation was noted in previous inspections in the vicinity of the overflow pond. Since the overflow pond has not been used in the past years, the vegetation is recovering.

01 ☐ K. DAMAGE TO FAUNA

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

04 NARRATIVE DESCRIPTION (include name(s) of species)

01 ☐ L. CONTAMINATION OF FOOD CHAIN

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

04 NARRATIVE DESCRIPTION

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES

02 ☒ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

(Spill, runoff, standing liquids, leaking drums)

03 POPULATION POTENTIALLY AFFECTED _____

04 NARRATIVE DESCRIPTION

Unlined creosote lagoons, groundwater contaminated from constituents in the lagoons
(surface impoundments)

01 ☐ N. DAMAGE TO OFFSITE PROPERTY

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

04 NARRATIVE DESCRIPTION

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

04 NARRATIVE DESCRIPTION

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

04 NARRATIVE DESCRIPTION

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

III. TOTAL POPULATION POTENTIALLY AFFECTED: 46,210

IV. COMMENTS

V. SOURCE(S) OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Division File - LAND

EXECUTIVE SUMMARY

Reilly Tar and Chemical Corporation is located southeast of Granite City in the Mississippi alluvium approximately two miles east of the river, near an oxbow that is now Horseshoe Lake. The site consists of 37 acres in the Southeast Quarter of Section 19, Township 3, Range 9 West of the 3rd Principal Meridian.

Reilly Tar is a distiller of coal tar pitch to produce creosote and various grades of pitch. Creosote waste (U051) and wastewater treatment sludge (K035) are generated from the manufacturing process.

There are three waste management units at this facility; a waste pile for U051, a drum storage area for K035, and an unlined surface impoundment. The waste pile and drum storage area are active. The surface impoundment no longer receives wastewater since the wastewater treatment plant now handles those wastes. Effluent from the WWTP is discharged to the Granite City sewer system. The impoundment received wastewater treatment sludge pre-RCRA and subsequently the treated effluent prior to obtaining the sewer discharge to the Granite City system.

Reilly Tar and Chemical has been performing quarterly groundwater sampling, analysis and assessment as part of their interim status. There are twelve wells around the surface impoundment. Both organics and degradation products from the impoundment sludge were found in the groundwater samples.

Hydrogeologic conditions at the site consist of two distinct strata, a fine sand surficial layer approximately 30 feet thick, and a sand and gravel layer underneath, which extends to bedrock approximately 170 feet. The groundwater flow direction from the site is currently to the west-southwest in both the shallow material and the American Bottoms Aquifer. The presence of naphthalene is limited to the shallow material; it has been detected only in wells MW-2, MW-6, and MW-7. Benzene and xylenes are consistently present in two wells each, and the wells are near the surface impoundment.

Wastewater treatment sludges generated in the production of creosote are classified as hazardous (K035). Listed hazardous constituents are:

Creosote	Indeno (1,2,3-cd) pyrene
Chrysene	Benzo (a) anthracene
Naphthalene	Dibenzo (a, h) anthracene
Flouranthene	Acenaphthylene
Benzo (a) pyrene	

Violations that were of common occurrence are:

Section 725.115(b)(1) - Failure to develop and follow a written schedule of inspections concerning the wastewater treatment facility.

Section 725.115(b)(2) - Failure to maintain the schedule at the facility.

Section 725.115(d) - Failure to record and maintain tank inspection logs.

Section 725.116 - Failure to subject all appropriate facility personnel to the requirements of this section.

Section 725.152(c) - Failure to describe arrangements agreed to by local authorities.

Section 722.123(a)(4) - Failure to provide Agency with one copy of the manifest.

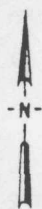
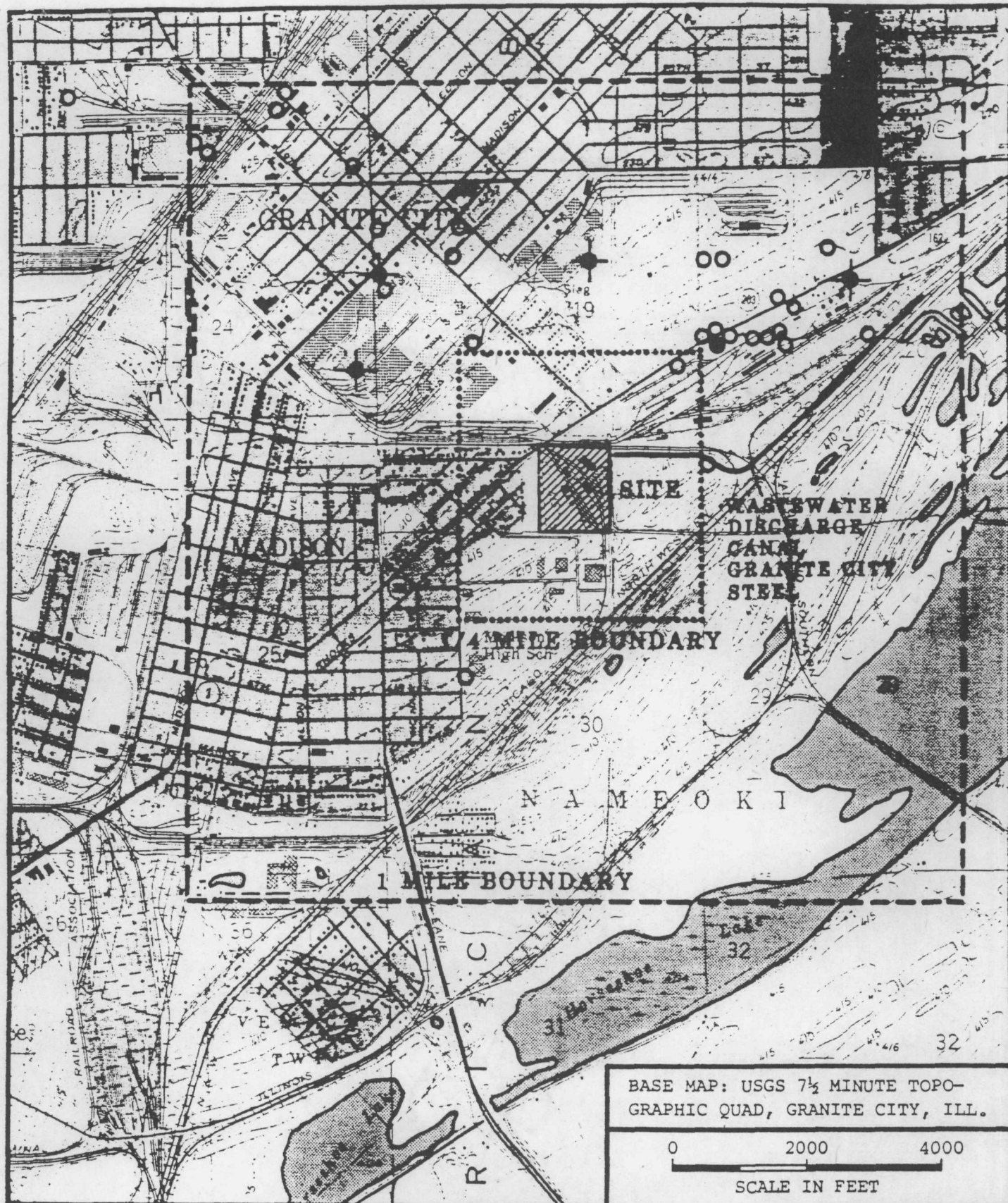
Section 725.173(b)(5) - Failure to document inspections in the Operating Record.

Section 725.294(a)-(e) - Failure to inspect and/or document inspections of the wastewater treatment facility.

Section 725.322 - Failure to maintain two feet of freeboard in the surface impoundment.

Under the circumstances of the groundwater being contaminated and the potential existing for private well contamination, this facility is assigned a high priority. It is strongly suggested that the groundwater assessment program remain in operation and the integrity of the groundwater be restored to its original state; also, the removal of sludge and contaminated soil from the unlined surface impoundments.

KLP:tk:4/14/29(9/10/86)



- UNKNOWN STATUS OR INACTIVE WELL
- PRODUCTION WATER WELL (ACTIVE)
- COLLECTOR WELL
- SURFACE WATER FEATURES

ALL WELLS OF PUBLIC RECORD OR KNOWN TO REILLY WITHIN 1 MILE OF SITE ARE SHOWN. TEST WELLS AND BORINGS ARE NOT SHOWN.

BASE MAP: USGS 7 1/2 MINUTE TOPO-GRAPHIC QUAD, GRANITE CITY, ILL.

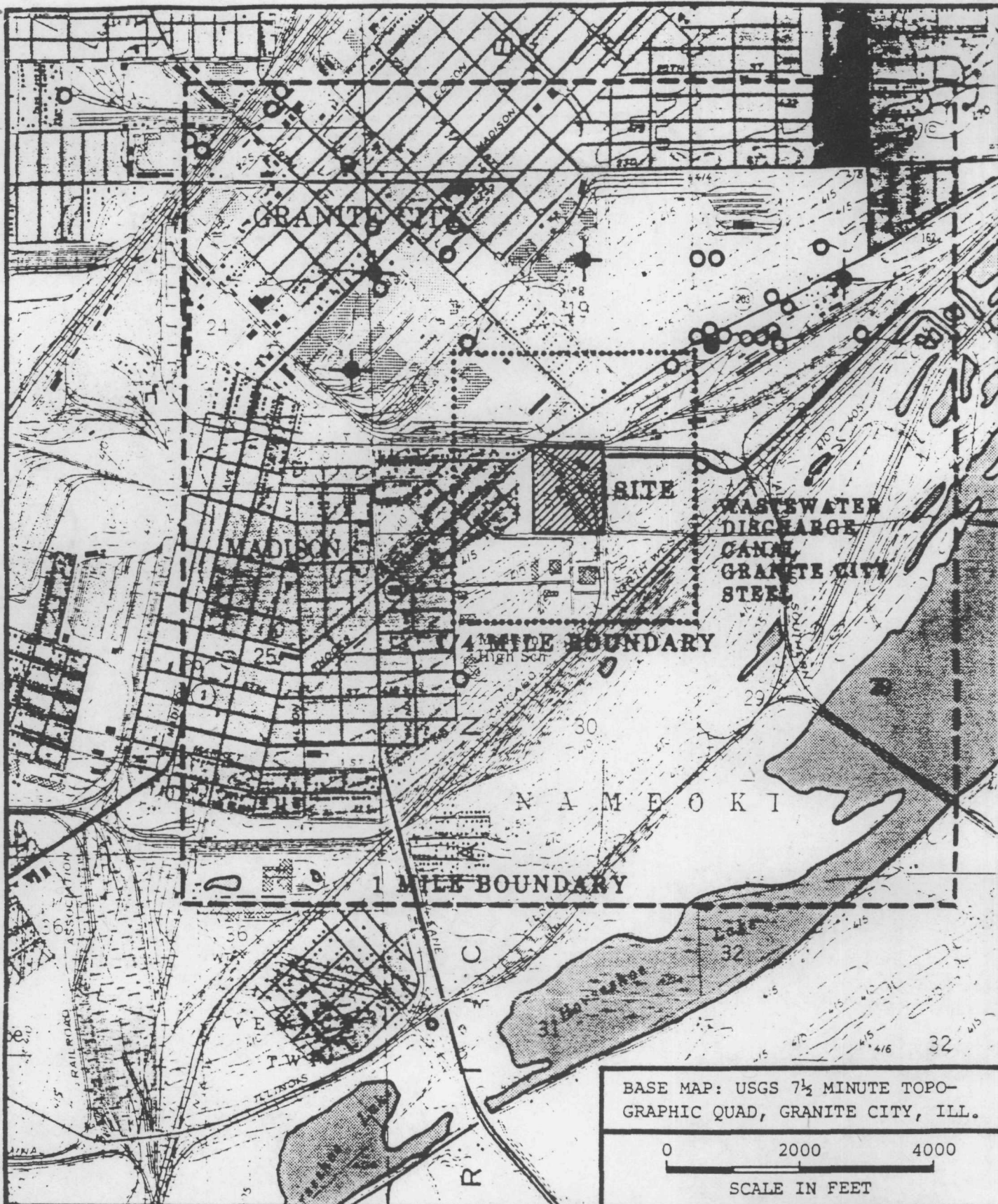
0 2000 4000
SCALE IN FEET

REILLY TAR & CHEMICAL CORP.

HYDROGEOLOGIC
VICINITY MAP

DAMES & MOORE

NOV. 1988



BASE MAP: USGS 7½ MINUTE TOPO-
GRAPHIC QUAD, GRANITE CITY, ILL.

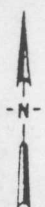
0 2000 4000
SCALE IN FEET

REILLY TAR & CHEMICAL CORP.

HYDROGEOLOGIC
VICINITY MAP

DAMES & MOORE

NOV. 1983



○ UNKNOWN STATUS OR INACTIVE WELL

● PRODUCTION WATER WELL (ACTIVE)

● COLLECTOR WELL

— SURFACE WATER FEATURES

ALL WELLS OF PUBLIC RECORD OR KNOWN TO REILLY
WITHIN 1 MILE OF SITE ARE SHOWN. TEST WELLS
AND BORINGS ARE NOT SHOWN.

DOCUMENTATION LOG SHEET

SITE NAME: Reilly Tar and Chemical Corporation
 CITY: Grover City STATE Illinois
 IDENTIFICATION NUMBER: LI90A02006 ; ILD006278360

REFERENCE NUMBER	DESCRIPTION OF THE REFERENCE
1	Interim Status Standard Inspection Report on 042381 by Jeff Stern-IEPA (DLPC-FOS FOLDER)
2	Interim Status Standard Inspection Report on 062684 by Mike Grant and Pat McCarthy-IEPA (DLPC-FOS FOLDER)
3	Compliance Inquiry Letter on July 9, 1984 (DLPC FOS FOLDER)
4	Interim Status Standard Inspection Report on 092184 by Mike Grant-IEPA (DLPC-Fos Folder)
5	Interim Status Standard Inspection Report on 120584 by Mike Grant-IEPA (DLPC FOS FOLDER)
6	Memo to the Division File from Mike Grant on July 5, 1984 (DLPC-FOS FOLDER)
7	Photos taken by Mike Grant on December 5, 1984 (DLPC-FOS FOLDER)
8	Interim Status Standard Inspection Report on 082285 by Mike Grant (DLPC-FOS FOLDER)
9	Interim Status Standard Inspection Report on 011686 by Mike Grant (DLPC-FOS FOLDER)
10	Hydrogeologic Investigation submitted by Dames & Moore for Reilly Tar & Chemical Corporation-Job No. 12871-001-17-September 30, 1982 (DLPC-Permit Folder)
11	Permit to Operate and Construct water pollution control facilities; permit No. 1983-EA-1020 (DLPC-Permit Folder)
12	Experimental Permit no. 1983-1-DE-EXP (DLPC-Permit Folder)
13	Memo to Bruce Carlson from Bar Filson on January 23, 1986 (DLPC-Enforcement File)

EXECUTIVE SUMMARY

REILLY TAR & CHEMICAL CORPORATION

GRANITE CITY, ILLINOIS

ILD006278360

Reilly Tar & Chemical Corporation (Reilly Tar) is located southeast of Granite City in the Mississippi alluvium approximately two miles east of the river, near an oxbow that is now Horseshoe Lake. Several water wells exist in the area northeast to northwest of the site. (See Site Sketches Attachment C.)

Reilly Tar is a distiller of coal tar pitch to produce creosote and various grades of pitch. Creosote waste (U051) and wastewater treatment sludge (K035) are generated from the manufacturing process.

There are three waste management units at this facility; a waste pile for U051, a drum storage area for K035, and an unlined surface impoundment. The waste pile and drum storage area are active. The surface impoundment no longer receives wastewater since the wastewater treatment plant now handles those wastes. Effluent from the WWTP is discharged to the Granite City sewer system. The impoundment received wastewater treatment sludge pre-RCRA, and subsequently the treated effluent prior to obtaining the sewer discharge to the Granite City system.

RCRA inspections in the past have found violations (operating record, inspections, training), but there were no violations during the most recent inspection (Jan. 16, 1986).

Groundwater violations have been remedied also. Reilly Tar is currently performing a groundwater assessment program. There are twelve wells around the surface impoundment. (See Attachment C-3). Both organics and degradation products from the impoundment sludge were found in the groundwater samples. Assessment continues.

Recommendations

1. Based on current groundwater monitoring data, it appears the groundwater is contaminated. Refer to USEPA for a Corrective Action Order pursuant to 3004(u) or (v) in order to require Reilly Tar to identify all product and waste spills and/or releases and then, if necessary, develop a remedial action program for the entire facility.
2. IEPA should perform a RCRA PA/SI to identify product and waste releases on- and off-site, and to identify SWMUs located at the facility.
3. Review the closure/post-closure plan for the surface impoundments.
4. Delay the Part B Permit application review process for the waste pile and drum storage areas in order to review the results of the PA/SI and incorporate any necessary corrective action identified by the PA/SI.